

Notice of Allowability

Application No.

10/747,837

Examiner

Hoa C. Nguyen

Applicant(s)

OSANAI ET AL.

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/29/07.
2. ☒ The allowed claim(s) is/are 1-7 and 10-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. The request filed on 1/29/07 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 10/747837 is acceptable and a RCE has been established. An Action on the RCE follows.
2. The amendment filed on 12/20/06 has been entered. Applicants have amended claims 1-6. Claims 10-12 are newly added. Claims 8-9 are cancelled.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicants' attorney, Gregory P. LaPointe, on 5/2/07.

The application has been amended as follows:

(a) Claim 1: The contains of the claim is replaced by:

-- A metal/ceramic bonding substrate comprising:

a ceramic substrate;

a metal circuit plate bonded to one side of said ceramic substrate; and

a heat sink plate of a metal, one surface of the heat sink plate being bonded to the other side of said ceramic substrate, and another surface of the heat sink plate comprising a work-hardened surface of said metal of said heat sink plate for mounting thereon a radiating or cooling means. --.

(b) Claim 3: Lines 2, 5, 6, and 7 of the claim, the "the other side" is changed to -- the another surface --.

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(c) Claim 4: Lines 2, 5, and 6-8 of the claim, the "the other side" is changed to -- the another surface --.

(d) Claim 5: Lines 2, 5, 6, and 8 of the claim, the "the other side" is changed to -- the another surface --.

Allowable Subject Matter

4. Claims 1-7 and 10-12 are allowed.

Reasons for allowance

5. The following is an examiner's statement of reasons for allowance: The best prior art references, Nagase et al. (US 6033787) and Elmoursi et al. (US 10030219576), taken alone or in combination, fail to teach or fairly suggest, at least on claim 1, a metal heat sink plate having one surface bonded to a ceramic substrate, and another surface of the heat sink plate is a work-hardened surface having a radiating means mounted thereon. And, none of the relevant art of record discloses such the sink plate that has a work-hardened surface mounted with a radiating or a cooling component.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

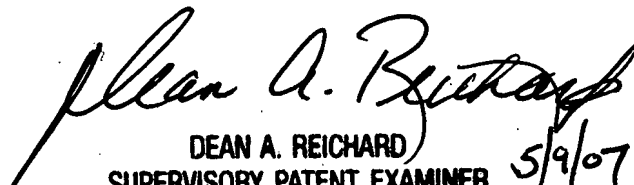
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa C. Nguyen whose telephone number is 571-272-8293. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hoa C. Nguyen
4/17/07


DEAN A. REICHARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800
5/9/07